

What is Claimed is:

1. A method for regulating a remaining play-out depth of a play-out buffer in a destination mobile unit, the method comprising:
 - receiving at least one communication from a source mobile unit in a play-out buffer, the play-out buffer having an associated play-out depth;
 - playing the communications received at the play-out buffer to a recipient at the destination mobile unit;
 - determining the remaining play-out depth of the play-out buffer in the destination mobile unit; and
 - sending an indication to the source mobile unit when the remaining play-out depth of the play-out buffer in the destination mobile unit reaches a predetermined threshold.
2. The method of claim 1 comprising:
 - encoding and transmitting the communications from the source mobile unit to the destination mobile unit at a coding rate;
 - receiving the indication from the destination mobile unit; and
 - adjusting the coding rate of the communications sent from the source mobile unit to the destination mobile unit as a function, at least in part, of the indication received from the destination mobile unit.
3. The method of claim 2 wherein adjusting the coding rate of the source mobile unit comprises adjusting the coding rate of a vocoder in the source mobile unit.
4. The method of claim 1 wherein sending an indication comprises sending a real-time transport protocol (RTP) header.
5. The method of claim 2 wherein receiving an indication comprises receiving a negative acknowledgment message for a frame.

6. A method of regulating a coding rate of communications transmitted from a source wireless unit to a destination wireless unit, the method comprising:

encoding communications in a vocoder at the source mobile unit at a coding rate and transmitting the communications to the destination unit;

receiving an indication from the destination mobile unit; and

adjusting the coding rate of the vocoder in the source mobile unit according to the indication received from the destination mobile unit.

7. The method of claim 6 wherein receiving an indication comprises receiving a real-time transport protocol (RTP) header.

8. The method of claim 6 wherein receiving an indication comprises receiving a negative acknowledgment message.

9. The method of claim 8 wherein receiving the indication comprises receiving the NAK that originated because of a request for retransmission for a frame that was originally sent more than a threshold number of seconds in the past.

10. A system comprising:

a source mobile unit transmitting voice communications;

a wireless infrastructure coupled to the source mobile unit, the infrastructure receiving the voice communications from the source mobile unit and presenting the voice communications at an output; and

a destination mobile unit coupled to the wireless infrastructure at an output of the wireless infrastructure, the destination mobile unit receiving the voice communications from the infrastructure, the destination mobile unit comprising a play-out buffer, the play-out buffer having an associated play-out depth, the destination wireless unit storing the voice communications in the play-out buffer and forming an indication when the play-out depth reaches a predetermined threshold.

11. The system of claim 10 wherein the indication formed in the destination mobile unit is a real-time transport protocol (RTP) header.

12. The system of claim 10 wherein the wireless infrastructure forms a negative acknowledgment message that is passed to the source mobile unit.

13. The system of claim 10 comprising a supplemental communication channel from the destination mobile unit to the wireless infrastructure and wherein the indication is sent over the supplemental communication channel to the infrastructure and from the infrastructure to the source mobile unit.

14. A device for controlling a rate of incoming communications comprising:
a wireless transceiver having at least one output;
a play-out buffer having a play-out depth and storing communications received from a source mobile unit;
an indication register containing data representing remaining play-out depth of the play-out buffer;
a controller coupled to the play-out buffer and the indication register, the controller also coupled to the transceiver via an indication message output, the indication message output corresponding to contents of the indication register;
such that the wireless transceiver will transmit a communication that comprises the indication message output.

15. The device of claim 14 comprising means for playing the communications received at the play-out buffer to a recipient;

16. The device of claim 14 comprising means for determining the remaining depth of the play-out buffer.

17. The device of claim 14 wherein the indication of play-out depth is comprised in an RTP header.

18. A wireless transmission device comprising:
a transceiver having an indication message input;
a storage register coupled to the transceiver, the storage register storing at least one indication message received by the transceiver at the indication message input;
a vocoder having a communication output and a control input and further having an associated adjustable vocoder coding rate that is responsive to the control input; and
a controller that is operably coupled to the storage register and coupled to the vocoder by the control input, the controller forming a signal on the control input based upon contents of the at least one indication message present in the storage register.

19. The device of claim 18 wherein the indication message is a real-time transport protocol (RTP) header.

20. The device of claim 18 wherein the indication message received is a negative acknowledgment message.

21. The device of claim 18 wherein the controller comprises means for determining the content of the at least one indication message.